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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,076	10/15/2003	Stefan Westernacher	PO-7964/LeA 36,380	7273

157 7590 07/09/2004

BAYER POLYMERS LLC
100 BAYER ROAD
PITTSBURGH, PA 15205

EXAMINER
BOYKIN, TERRESSA M

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/686,076	**Applicant(s)** WESTERNACHER ET AL.
	Examiner Terressa M. Boykin	**Art Unit** 1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 2-11-04;10-15-04.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) 1-6 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-6 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/03;2/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by **US 5508375** note abstract, cols. 1-3, example 1 and claim 1.

Applicants' claims are directed to process for producing polycarbonate resin by the phase interface method wherein the improvement comprises adding at least one chlorinated aromatic hydrocarbonate to the organic phase.

US 5508375 discloses that production of polycarbonates by phase interface process proceeds very economically, with high yields of raw materials, great constancy and reproducibility of the molecular weight and excellent separation of the reaction emulsion if the process is carried out throughout with oil-in-water emulsions which have high electrolyte contents in the aqueous phase. The process according to the reference surprisingly results in permanently reproducible phase separation after the completed reaction, with small residual water contents in the organic phase. Advantages are also found in the washing of the crude polycarbonate solutions to free them from electrolytes. Reactions with additives during the extrusion process are suppressed. Further, the molecular weights obtained in a continuous process can be kept within narrow limits. It is also advantageous to use aqueous alkali metal salt solutions of diphenols at high concentrations in order to reduce the quantity of effluent. It is another advantage that the excess of phosgene can be substantially reduced without any loss of quality of the polycarbonate and/or increase in the diphenol and phenol contents in the aqueous reaction phase. The specific quantity of salt in the effluent and the amount of di- and monophenols in the effluent are reduced. The solvents used may be any which dissolve oligo and polycarbonates at the chosen reaction temperatures and pressures and are substantially immiscible with water (in the sense of solutions). Chlorinated hydrocarbons such as ethylene chloride or chlorobenzene are preferably used. These solvents may be used alone or in mixtures of various compositions. When chlorobenzene is used alone it is necessary to employ higher operating temperatures for the reaction and for washing in order to obtain technically useful concentrations of polycarbonate in chlorobenzene. Benzene homologues may also be used as solvents.

The process has a concentration of diphenols in the aqueous alkali metal solution is from 10 to 40% by weight, preferably from 15 to 30% by weight, based on the aqueous alkali metal salt solution; and wherein the aqueous reaction phase is returned in such a quantity that the concentration of diphenols, based on the whole reaction phase consisting of alkali metal salt solution of the diphenols, alkali liquor and returned aqueous reaction phase, amounts to 2.5 to 25% by weight preferably 2.5 to 15% by weight, most preferably 2.5 to 10% by weight.

Note that Example 1 discloses the use of 88.4 kg of bisphenolate solution/h, 85.2 kg of a solvent mixture of 50 parts by weight of methylene chloride and 50 parts by weight of chlorobenzene/h, 6.4 kg of phosgene/h, 177 kg of aqueous reaction phase/h and 2.15 kg of 50% sodium hydroxide solution/h are pumped into a pump circulation reactor with heat exchanger. The bisphenolate solution contains 15% by weight of bisphenol A and 2 mol of sodium hydroxide per mol of bisphenol A. The BPA concentration, based on the quantity of aqueous phases introduced, is 5% by weight of bisphenol A.

With regard to dependent claim 5, note that the reference states that the process may be worked up in the usual apparatus to produce any moldings and articles such as films, threads, plates, lamp housings, optical lenses and compact discs.

With regard to dependent claim 6 note example 1 of the reference wherein the

polycarbonate is isolated by evaporation of the solvent in an extruder.

Thus, the reference discloses a polycarbonate by the phase interface method having the same chlorinated aromatic hydrocarbon (i.e. chlorobenzene) as claimed by applicants. There appears to be no significant difference between the reference and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

Correspondence

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants may be referred to the

Electronic Business Center (EBC) at http://www.uspto.gov/ebc/index.html or 1-866-217-9197.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is **(571-272-1700).**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb

Terressa Boykin

Examiner Terressa Boykin
Primary Examiner
Art Unit 1711